

then recessed (80) below the surface of insulating layer 15 using a selective etch process. When container layer 40 contains polysilicon, a timed, wet poly etch process can be used to recess container layer 40. The wet poly etch may remove portions of fill layer 50, but will generally be selective to the polysilicon such that container layer 40 will be recessed below both insulating layer 15 and fill layer 50.

IN THE CLAIMS

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect amendment of previously pending claims 1, 6 and 8, and addition of new claims 109-111. The specific amendments to individual claims are detailed in the following marked up set of claims.

1. (Amended) A semiconductor structure having a dielectric layer, comprising:

a conductive container structure having a closed bottom and sidewalls extending upward from the closed bottom; and
a dielectric cap on a top of the sidewalls, wherein the dielectric cap is adapted to remain on the top of the sidewalls and form part of the dielectric layer.

6. (Amended) A semiconductor structure having a dielectric layer, comprising:

a conductive container structure having a closed bottom and sidewalls extending upward from the closed bottom, wherein the closed bottom and sidewalls comprise at least one silicon material selected from the group consisting of amorphous silicon, polysilicon and hemispherical grain polysilicon; and
a dielectric cap on a top of the sidewalls, wherein the dielectric cap comprises at least one dielectric material selected from the group consisting of oxides, nitrides and silicon oxynitrides, and wherein the dielectric cap is adapted to remain on the top of the sidewalls and form part of the dielectric layer.

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8. (Amended) A semiconductor structure having a dielectric layer, comprising:
a conductive container structure having sidewalls, wherein the conductive container structure comprises conductively-doped hemispherical grain polysilicon; and
a dielectric cap on a top of the sidewalls, wherein the dielectric cap comprises silicon oxynitride, wherein the dielectric cap is adapted to remain on the top of the sidewalls and form part of the dielectric layer.

Please add the following:

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x 109. (New) A semiconductor structure, comprising:
a conductive container structure having a closed bottom and sidewalls extending upward from the closed bottom;
a dielectric cap on a top of the sidewalls; and
a dielectric layer on the dielectric cap and the conductive container structure.

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x 110. (New) A semiconductor structure, comprising:
a conductive container structure having a closed bottom and sidewalls extending upward from the closed bottom, wherein the closed bottom and sidewalls comprise at least one silicon material selected from the group consisting of amorphous silicon, polysilicon and hemispherical grain polysilicon;
a dielectric cap on a top of the sidewalls, wherein the dielectric cap comprises at least one dielectric material selected from the group consisting of oxides, nitrides and silicon oxynitrides; and
a dielectric layer on the dielectric cap and the conductive container structure.

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x 111. (New) A semiconductor structure, comprising:
a conductive container structure having sidewalls, wherein the conductive container structure comprises conductively-doped hemispherical grain polysilicon;
a dielectric cap on a top of the sidewalls, wherein the dielectric cap comprises silicon
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